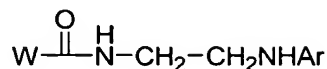


**WHAT IS CLAIMED IS:**

1. A compound of Formula I:



(I)

or a pharmaceutically acceptable salt or prodrug thereof,  
wherein:

W is a member selected from the group consisting of

$\text{R}^1\text{-X-(C=O)-NH-CHR}^2\text{-}$ ,

$\text{R}^4\text{-Y-(C=O)-NH-CHR}^3\text{-}$ ,

$\text{R}^6\text{-(C=O)-NH-CHR}^5\text{-}$ ,

$\text{R}^7\text{-NH-(C=O)-NH-CHR}^8\text{-}$ ,

$\text{R}^{10}\text{-Z-(C=O)-NH-CHR}^9\text{-}$ , and

$\text{R}^{11}\text{-(C=O)-NH-CHR}^{12}\text{-}$ ;

$\text{R}^1$  is a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{1a}$ ,  
pyridyl substituted with 0-2  $\text{R}^{1a}$ , and pyridinium N-oxide substituted with 0-2  
 $\text{R}^{1a}$ ;

each  $\text{R}^{1a}$  is independently a member selected from the group consisting of Cl, F,  
 $\text{OCF}_3$ ,  $\text{OCH}_3$ ,  $\text{CH}_3$  and  $\text{CF}_3$ ;

X is a member selected from the group consisting of furanylene substituted with 0-1  
 $\text{R}^x$ , thienylene substituted with 0-1  $\text{R}^x$ , pyrazolyene substituted with 0-1  $\text{R}^x$ ,  
thiazolyene substituted with 0-1  $\text{R}^x$ , and oxazolyene substituted with 0-1  $\text{R}^x$ ;

$\text{R}^x$  is a member selected from the group consisting of F, Cl,  $\text{CH}_3$  and  $\text{CF}_3$ ;

$\text{R}^2$  is a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{2a}$ ,  
and  $(\text{CH}_2)_n\text{R}^{2b}$ ;

each  $\text{R}^{2a}$  is independently a member selected from the group consisting of Cl, F,  
 $\text{OCF}_3$ ,  $\text{OCH}_3$ ,  $\text{CH}_3$  and  $\text{CF}_3$ ;

$\text{R}^{2b}$  is independently a member selected from the group consisting of phenyl  
substituted with 0-2  $\text{R}^{2a}$ ; cyclopentyl, cyclohexyl and tetrahydropyranyl;

n is the integer 1 or 2;

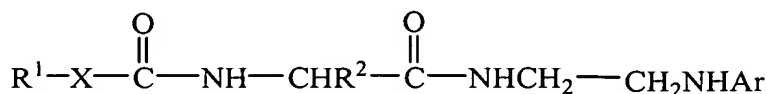
$\text{R}^3$  is  $(\text{CH}_2)_m\text{R}^{3b}$ ;

$R^{3b}$  is selected from the group consisting of phenyl substituted with 0-2  $R^{2a}$ ,  
cyclopentyl and cyclohexyl;  
m is the integer 1 or 2;  
 $R^4$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{4a}$ ,  
thienyl, tetrazolyl, cyclopentenyl and indolyl;  
each  $R^{4a}$  is a member selected from the group consisting of phenyl, OH,  $C_1$ - $C_4$  alkyl,  
 $C_1$ - $C_4$  alkoxy,  $CF_3$ ,  $OCF_3$ , F, Cl,  $CH_3S(=O)_2$ -, morpholinyl, pyrrolidinyl,  
piperidinyl and 4-acetylpiperazinyl;  
Y is a member selected from the group consisting of  $-CR^{17}R^{18}$ ,  $-NH-CH_2-$  and  
 $-O-CH_2-$ ;  
 $R^5$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{5a}$ ,  
thiophene, naphthyl, and  $CH_2R^{5b}$ ,  $CH_2CH_2$ (cyclohexyl),  
 $CH_2CH_2CH_2$ (cyclohexyl),  $CH_2CH_2Ph$ ,  $CH(CH_3)R^{5c}$ ,  $CH_2CH=CHPh$ , -  
 $CH_2OCH_2Ph$ ,  $-CH(CH_3)OCH_2Ph$ ;  
each  $R^{5a}$  is independently a member selected from the group consisting of F, Cl,  $NO_2$ ,  
 $OCH_3$ ,  $OCH_2Ph$ ,  $OPh$ ,  $CH_3$ ,  $OCF_3$  and  $CF_3$ ;  
 $R^{5b}$  is independently a member selected from the group consisting of phenyl  
substituted with 0-2  $R^{5c}$ ; cyclopentyl, cyclohexyl, naphthyl, indolyl and  
pyridyl;  
 $R^{5c}$  is independently a member selected from the group consisting of OH, Cl, F, Br, I,  
CN,  $NO_2$ ,  $CH_3$ ,  $OCH_3$ ,  $tBu$ ,  $O-tBu$ ,  $-NHC(=O)CH_3$ ,  $CF_3$ ,  $OCF_3$ ; phenyl  
substituted with 0-2  $R^{5d}$ ; phenoxy substituted with 0-2  $R^{5d}$ ; benzyloxy  
substituted with 0-2  $R^{5d}$ ; pyridyl substituted with 0-2  $R^{5d}$ ; pyrimidinyl  
substituted with 0-2  $R^{5d}$ ; thienyl substituted with 0-2  $R^{5d}$ ;  
 $R^{5d}$  is independently a member selected from the group consisting of  $CH_3$ , Cl, F,  
 $OCH_3$ ,  $CF_3$ ,  $OCF_3$ ,  $N(CH_3)_2$ , acetyl, OH,  $CH_2OH$ ,  $NH_2$ , CN and  $NO_2$ ;  
 $R^{5e}$  is phenyl substituted with 0-2  $R^{5a}$ ;  
 $R^6$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{6a}$ ,  
furanyl substituted with 0-2  $R^{6b}$ , thienyl substituted with 0-2  $R^{6b}$ , oxazolyl  
substituted with 0-2  $R^{6b}$ , thiazolyl substituted with 0-2  $R^{6b}$ , pyridyl,  
pyridazinyl and cyclopropyl;  
each  $R^{6a}$  is independently a member selected from the group consisting of Cl, F, Br,  
 $OCF_3$ ,  $CF_3$ ,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $-S(=O)_2CH_3$ , CN,  $-N(CH_3)_2$ ,  $OCF_2H$ , -

63 CH<sub>2</sub>-benzimidazole, -NH-S(=O)<sub>2</sub>CH<sub>3</sub>, -NR<sup>13</sup>R<sup>14</sup>, OR<sup>14</sup>, CH<sub>2</sub>-morpholine,  
 64 CH<sub>2</sub>NH<sub>2</sub>, OCH<sub>2</sub>Ph, and OPh;  
 65 alternatively, two R<sup>6a</sup> substituents on adjacent atoms may be combined to form a 5 to  
 66 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 67 heterocyclic fused radical has 1 or 2 oxygen atom(s);  
 68 each R<sup>6b</sup> is independently a member selected from the group consisting of NH<sub>2</sub>, F, Cl,  
 69 Br, -S(=O)<sub>2</sub>R<sup>15</sup>, CH<sub>3</sub>, and CF<sub>3</sub>;  
 70 R<sup>7</sup> is a member selected from the group consisting of (CH<sub>2</sub>)<sub>p</sub> R<sup>7a</sup>, and naphthyl  
 71 substituted with 0-2 R<sup>7b</sup>;  
 72 p is the integer 0, 1, or 2;  
 73 R<sup>7a</sup> is phenyl substituted with 0-2 R<sup>7b</sup>;  
 74 R<sup>7b</sup> is a member selected from the group consisting of F, Cl, CF<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub>  
 75 alkoxy, OCF<sub>3</sub>, phenoxy and acetyl;  
 76 alternatively, two R<sup>7b</sup> substituents on adjacent atoms may be combined to form a 5 to  
 77 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 78 heterocyclic fused radical has 1 or 2 oxygen atom(s);  
 79 R<sup>8</sup> is -CH<sub>2</sub>-R<sup>3b</sup>;  
 80 R<sup>9</sup> is (CH<sub>2</sub>)<sub>q</sub>R<sup>9a</sup>;  
 81 R<sup>9a</sup> is a member selected from the group consisting of cyclopentyl, phenyl and  
 82 cyclohexyl;  
 83 q is the integer 1 or 2;  
 84 R<sup>10</sup> is a member selected from the group consisting of phenyl substituted with 0-2  
 85 R<sup>10a</sup>, 5 membered heteroaryl containing 1 to 4 heteroatoms each independently  
 86 a member selected from the group consisting of N, O and S, wherein said  
 87 heteroaryl is substituted with 0-2 R<sup>10a</sup>, 6 membered heteroaryl containing 1 to  
 88 2 N, wherein said heteroaryl is substituted with 0-2 R<sup>10a</sup>, morpholinyl  
 89 substituted with 0-2 R<sup>10a</sup>, piperazinyl substituted with 0-2 R<sup>10a</sup> and piperidinyl  
 90 substituted with 0-2 R<sup>10a</sup>;  
 91 each R<sup>10a</sup> is independently a member selected from the group consisting of Cl, F, C<sub>1</sub>-  
 92 C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, OCF<sub>3</sub>, and CF<sub>3</sub>;  
 93 alternatively, two R<sup>10a</sup> substituents on adjacent atoms may be combined to form a 5 to  
 94 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 95 heterocyclic fused radical comprises 1 or 2 heteroatom(s);  
 96 Z is phenylene;

$R^{11}$  is a member selected from the group consisting of indolyl substituted with 0-2  $R^{11a}$ , benzofuranyl substituted with 0-2  $R^{11a}$ , benzothieryl substituted with 0-2  $R^{11a}$ , benzothiazole substituted with 0-2  $R^{11a}$ , benzisoxazolyl substituted with 0-2  $R^{11a}$ , benzoxazolyl substituted with 0-2  $R^{11a}$ , and pyrazolo[1,5-a]pyrimidinyl substituted with 0-2  $R^{11a}$ , piperidinyl N-substituted with 0-1  $R^{11b}$ , morpholinyl N-substituted with 0-1  $R^{11b}$ ; and 2-oxo-pyrrolidinyl with 0-1  $R^{11b}$ ;  
each  $R^{11a}$  is independently a member selected from the group consisting of Cl, F,  $NH_2$ ,  $CH_3$ ,  $OCH_3$ ,  $-C(=O)OCH_3$ ,  $OCF_3$ , and  $CF_3$ ;  
each  $R^{11b}$  is independently a member selected from the group consisting of pyrimidinyl substituted with 0-2  $R^{11c}$ ; benzyl, acetyl,  $CH_2$ -furanyl, and  $CH_2$ -thienyl;  
each  $R^{11c}$  is independently a member selected from the group consisting of Br and  $CH_3$ ;  
 $R^{12}$  is  $(CH_2)_s R^{12a}$ ;  
 $R^{12a}$  is a member selected from the group consisting of cyclopentyl and cyclohexyl;  
s is the integer 1 or 2;  
 $R^{13}$  is a member selected from the group consisting of H and  $C_1$ - $C_4$  alkyl;  
 $R^{14}$  is pyrimidinyl substituted with 0-2  $R^{16}$ ;  
 $R^{15}$  is a member selected from the group consisting of  $C_1$ - $C_4$  alkyl, morpholinyl, pyrrolidinyl and piperidinyl;  
 $R^{16}$  is a member selected from the group consisting of  $CH_3$  and  $OCH_3$ ;  
each of  $R^{17}$  and  $R^{18}$  is independently a member of H, OH, F, phenyl and  $C_1$ - $C_3$  alkyl; alternatively,  $R^{17}$  and  $R^{18}$  may be taken together to form a  $C_3$ - $C_6$  cycloalkyl;  
Ar is a phenyl substituted with 0-2  $R^{19}$ ; and  
each  $R^{19}$  is independently a member selected from the group consisting of F, Cl,  $COOH$ ,  $C_1$ - $C_4$  alkoxy,  $OCHF_2$  and  $OCF_3$ .

2. The compound of claim 1, wherein said compound has the formula:

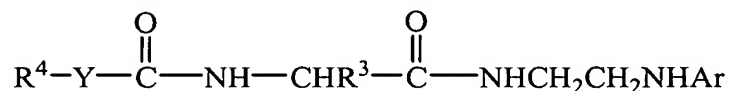


**Ia**

wherein:

$R^1$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{1a}$ ,  
 pyridyl substituted with 0-2  $R^{1a}$ , and pyridinium N-oxide substituted with 0-2  
 $R^{1a}$ ;  
 each  $R^{1a}$  is independently a member selected from the group consisting of Cl, F,  
 $OCF_3$ ,  $OCH_3$ ,  $CH_3$  and  $CF_3$ ;  
 X is a member selected from the group consisting of furanylene substituted with 0-1  
 $R^x$ , thienylene substituted with 0-1  $R^x$ , pyrazolyene substituted with 0-1  $R^x$ ,  
 thiazolyene substituted with 0-1  $R^x$ , and oxazolyene substituted with 0-1  $R^x$ ;  
 $R^x$  is a member selected from the group consisting of F, Cl,  $CH_3$  and  $CF_3$ ;  
 $R^2$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{2a}$ ,  
 and  $(CH_2)_nR^{2b}$ ;  
 each  $R^{2a}$  is independently a member selected from the group consisting of Cl, F,  
 $OCF_3$ ,  $OCH_3$ ,  $CH_3$  and  $CF_3$ ;  
 $R^{2b}$  is independently a member selected from the group consisting of phenyl  
 substituted with 0-2  $R^{2a}$ , cyclopentyl, cyclohexyl and tetrahydropyranyl;  
 n is the integer 1 or 2;  
 Ar is a phenyl substituted with 0-2  $R^{19}$ ; and  
 each  $R^{19}$  is independently a member selected from the group consisting of F, Cl,  
 $COOH$ ,  $C_1$ - $C_4$  alkoxy,  $OCHF_2$  and  $OCF_3$ .

3. The compound of claim 1, wherein said compound has the formula:



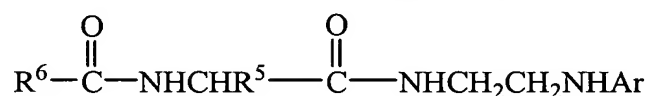
**Ib**

wherein:

$R^4$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{4a}$ ,  
 thienyl, tetrazolyl, cyclopentenyl and indolyl;  
 each  $R^{4a}$  is a member selected from the group consisting of phenyl, OH,  $C_1$ - $C_4$  alkyl,  
 $C_1$ - $C_4$  alkoxy,  $CF_3$ ,  $OCF_3$ , F, Cl,  $CH_3S(=O)_2$ -, morpholinyl, pyrrolidinyl,  
 piperidinyl and 4-acetylpiperazinyl;  
 Y is a member selected from the group consisting of  $-CR^{17}R^{18}$ ,  $-NH-CH_2-$  and  
 $-O-CH_2-$ ;  
 $R^3$  is  $(CH_2)_mR^{3b}$ ;

$R^{3b}$  is selected from the group consisting of phenyl substituted with 0-2  $R^{2a}$ ,  
 cyclopentyl and cyclohexyl;  
 each  $R^{2a}$  is independently a member selected from the group consisting of Cl, F,  
 $OCF_3$ ,  $OCH_3$ ,  $CH_3$  and  $CF_3$ ;  
 m is the integer 1 or 2;  
 each of  $R^{17}$  and  $R^{18}$  is independently a member of H, OH, F, phenyl and  $C_1$ - $C_3$  alkyl;  
 alternatively,  $R^{17}$  and  $R^{18}$  may be taken together to form a  $C_3$ - $C_6$  cycloalkyl;  
 Ar is a phenyl substituted with 0-2  $R^{19}$ ; and  
 each  $R^{19}$  is independently a member selected from the group consisting of F, Cl,  
 $COOH$ ,  $C_1$ - $C_4$  alkoxy,  $OCHF_2$  and  $OCF_3$ .

4. The compound of claim 1, wherein said compound has the formula:



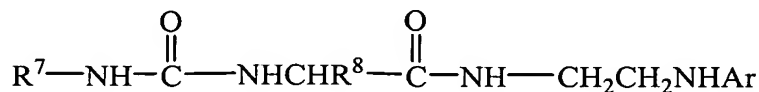
**Ic**

wherein:

$R^5$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{5a}$ ,  
 thiophene, naphthyl, and  $CH_2R^{5b}$ ,  $CH_2CH_2$ (cyclohexyl),  
 $CH_2CH_2CH_2$ (cyclohexyl),  $CH_2CH_2Ph$ ,  $CH(CH_3)R^{5c}$ ,  $CH_2CH=CHPh$ , -  
 $CH_2OCH_2Ph$ , and  $-CH(CH_3)OCH_2Ph$ ;  
 each  $R^{5a}$  is independently a member selected from the group consisting of F, Cl,  $NO_2$ ,  
 $OCH_3$ ,  $OCH_2Ph$ ,  $OPh$ ,  $CH_3$ ,  $OCF_3$  and  $CF_3$ ;  
 $R^{5b}$  is independently a member selected from the group consisting of phenyl  
 substituted with 0-2  $R^{5c}$ ; cyclopentyl, cyclohexyl, naphthyl, indolyl and  
 pyridyl;  
 $R^{5c}$  is independently a member selected from the group consisting of OH, Cl, F, Br, I,  
 CN,  $NO_2$ ,  $CH_3$ ,  $OCH_3$ ,  $tBu$ ,  $O-tBu$ ,  $-NHC(=O)CH_3$ ,  $CF_3$ ,  $OCF_3$ , phenyl  
 substituted with 0-2  $R^{5d}$ , phenoxy substituted with 0-2  $R^{5d}$ , benzyloxy  
 substituted with 0-2  $R^{5d}$ , pyridyl substituted with 0-2  $R^{5d}$ , pyrimidinyl  
 substituted with 0-2  $R^{5d}$ , and thienyl substituted with 0-2  $R^{5d}$ ;  
 $R^{5d}$  is independently a member selected from the group consisting of  $CH_3$ , Cl, F,  
 $OCH_3$ ,  $CF_3$ ,  $OCF_3$ ,  $N(CH_3)_2$ , acetyl, OH,  $CH_2OH$ ,  $NH_2$ , CN and  $NO_2$ ;  
 $R^{5e}$  is phenyl substituted with 0-2  $R^{5a}$ ;

$R^6$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{6a}$ ,  
 furanyl substituted with 0-2  $R^{6b}$ ; thienyl substituted with 0-2  $R^{6b}$ ; oxazolyl  
 substituted with 0-2  $R^{6b}$ ; thiazolyl substituted with 0-2  $R^{6b}$ ; pyridyl,  
 pyridazinyl and cyclopropyl;  
 each  $R^{6a}$  is independently a member selected from the group consisting of Cl, F, Br,  
 $OCF_3$ ,  $CF_3$ ,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $-S(=O)_2CH_3$ , CN,  $-N(CH_3)_2$ ,  $OCF_2H$ ,  $-$   
 $CH_2$ -benzimidazole,  $-NH-S(=O)_2CH_3$ ,  $-NR^{13}R^{14}$ ,  $OR^{14}$ ,  $CH_2$ -morpholine,  
 $CH_2NH_2$ ,  $OCH_2Ph$ , and  $OPh$ ;  
 alternatively, two  $R^{6a}$  substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical has 1 or 2 oxygen atom(s);  
 each  $R^{6b}$  is independently a member selected from the group consisting of  $NH_2$ , F, Cl,  
 Br,  $-S(=O)_2R^{15}$ ,  $CH_3$ , and  $CF_3$ ;  
 $R^{13}$  is a member selected from the group consisting of H and  $C_1$ - $C_4$  alkyl;  
 $R^{14}$  is pyrimidinyl substituted with 0-2  $R^{16}$ ;  
 $R^{15}$  is a member selected from the group consisting of  $C_1$ - $C_4$  alkyl, morpholinyl,  
 pyrrolidinyl and piperidinyl;  
 $R^{16}$  is a member selected from the group consisting of  $CH_3$  and  $OCH_3$ ;  
 Ar is a phenyl substituted with 0-2  $R^{19}$ ; and  
 each  $R^{19}$  is independently a member selected from the group consisting of F, Cl,  
 $COOH$ ,  $C_1$ - $C_4$  alkoxy,  $OCHF_2$  and  $OCF_3$ .

5. The compound of claim 1, wherein said compound has the formula:



**Id**

wherein:

$R^7$  is a member selected from the group consisting of  $(CH_2)_p R^{7a}$ ; and naphthyl  
 substituted with 0-2  $R^{7b}$ ;  
 p is the integer 0, 1, or 2;  
 $R^{7a}$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{7b}$ ;  
 $R^{7b}$  is a member selected from the group consisting of F, Cl,  $CF_3$ ,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$   
 alkoxy,  $OCF_3$ , phenoxy and acetyl;

alternatively, two R<sup>7b</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heterocyclic fused radical, wherein said 5 to 6 membered heterocyclic fused radical has 1 or 2 oxygen atom(s);

R<sup>8</sup> is -CH<sub>2</sub>-R<sup>3b</sup>;

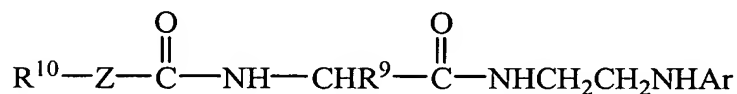
R<sup>3b</sup> is selected from the group consisting of phenyl substituted with 0-2 R<sup>2a</sup>, cyclopentyl and cyclohexyl;

each R<sup>2a</sup> is independently a member selected from the group consisting of Cl, F, OCF<sub>3</sub>, OCH<sub>3</sub>, CH<sub>3</sub> and CF<sub>3</sub>;

Ar is a phenyl substituted with 0-2 R<sup>19</sup>; and

each R<sup>19</sup> is independently a member selected from the group consisting of F, Cl, COOH, C<sub>1</sub>-C<sub>4</sub> alkoxy, OCHF<sub>2</sub> and OCF<sub>3</sub>.

6. The compound of claim 1, wherein said compound has the formula:



Ie

wherein:

R<sup>10</sup> is a member selected from the group consisting of phenyl substituted with 0-2 R<sup>10a</sup>, 5 membered heteroaryl containing 1 to 4 heteroatoms each independently a member selected from the group consisting of N, O and S, wherein said heteroaryl is substituted with 0-2 R<sup>10a</sup>, 6 membered heteroaryl containing 1 to 2 N, wherein said heteroaryl is substituted with 0-2 R<sup>10a</sup>, morpholinyl substituted with 0-2 R<sup>10a</sup>, piperazinyl substituted with 0-2 R<sup>10a</sup> and piperidinyl substituted with 0-2 R<sup>10a</sup>;

each R<sup>10a</sup> is independently a member selected from the group consisting of Cl, F, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, OCF<sub>3</sub>, and CF<sub>3</sub>;

alternatively, two R<sup>10a</sup> substituents on adjacent atoms may be combined to form a 5 to 6 membered heterocyclic fused radical, wherein said 5 to 6 membered heterocyclic fused radical comprises 1 or 2 heteroatom(s);

Z is phenylene;

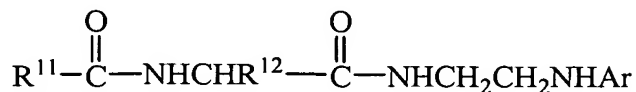
R<sup>9</sup> is (CH<sub>2</sub>)<sub>q</sub>R<sup>9a</sup>;

R<sup>9a</sup> is a member selected from the group consisting of cyclopentyl, phenyl and cyclohexyl;



q is the integer 1 or 2;  
 Ar is a phenyl substituted with 0-2 R<sup>19</sup>; and  
 each R<sup>19</sup> is independently a member selected from the group consisting of F, Cl,  
 COOH, C<sub>1</sub>-C<sub>4</sub> alkoxy, OCHF<sub>2</sub> and OCF<sub>3</sub>.

7. The compound of claim 1, wherein said compound has the formula:



If

wherein:

R<sup>11</sup> is a member selected from the group consisting of indolyl substituted with 0-2 R<sup>11a</sup>; benzofuranyl substituted with 0-2 R<sup>11a</sup>; benzothienyl substituted with 0-2 R<sup>11a</sup>; benzothiazole substituted with 0-2 R<sup>11a</sup>; benzisoxazolyl substituted with 0-2 R<sup>11a</sup>; benzoxazolyl substituted with 0-2 R<sup>11a</sup>; and pyrazolo[1,5-a]pyrimidinyl substituted with 0-2 R<sup>11a</sup>; piperidinyl N-substituted with 0-1 R<sup>11b</sup>; morpholinyl N-substituted with 0-1 R<sup>11b</sup>; and 2-oxo-pyrrolidinyl with 0-1 R<sup>11b</sup>;

each R<sup>11a</sup> is independently a member selected from the group consisting of Cl, F, NH<sub>2</sub>, CH<sub>3</sub>, OCH<sub>3</sub>, -C(=O)OCH<sub>3</sub>, OCF<sub>3</sub>, and CF<sub>3</sub>;

each R<sup>11b</sup> is independently a member selected from the group consisting of pyrimidinyl substituted with 0-2 R<sup>11c</sup>; benzyl, acetyl, CH<sub>2</sub>-furanyl, and CH<sub>2</sub>-thienyl;

each R<sup>11c</sup> is independently a member selected from the group consisting of Br and CH<sub>3</sub>;

R<sup>12</sup> is (CH<sub>2</sub>)<sub>s</sub>R<sup>12a</sup>;

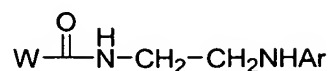
R<sup>12a</sup> is a member selected from the group consisting of cyclopentyl and cyclohexyl;  
 s is the integer 1 or 2;

Ar is a phenyl substituted with 0-2 R<sup>19</sup>; and

each R<sup>19</sup> is independently a member selected from the group consisting of F, Cl, COOH, C<sub>1</sub>-C<sub>4</sub> alkoxy, OCHF<sub>2</sub> and OCF<sub>3</sub>.

8. The compound of claim 1, wherein said compound is a member selected from the compounds of Table I.

9. A pharmaceutical composition, said composition comprising a compound of Formula I:



(I)

or a pharmaceutically acceptable salt or prodrug thereof,  
wherein:

W is a member selected from the group consisting of

$\text{R}^1-\text{X}-(\text{C}=\text{O})-\text{NH}-\text{CHR}^2-$ ,

$\text{R}^4-\text{Y}-(\text{C}=\text{O})-\text{NH}-\text{CHR}^3-$ ,

$\text{R}^6-(\text{C}=\text{O})-\text{NH}-\text{CHR}^5-$ ,

$\text{R}^7-\text{NH}-(\text{C}=\text{O})-\text{NH}-\text{CHR}^8-$ ,

$\text{R}^{10}-\text{Z}-(\text{C}=\text{O})-\text{NH}-\text{CHR}^9-$ , and

$\text{R}^{11}-(\text{C}=\text{O})-\text{NH}-\text{CHR}^{12}-$ ;

$\text{R}^1$  is a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{1a}$ ,  
pyridyl substituted with 0-2  $\text{R}^{1a}$ , and pyridinium N-oxide substituted with 0-2  
 $\text{R}^{1a}$ ;

each  $\text{R}^{1a}$  is independently a member selected from the group consisting of Cl, F,  
 $\text{OCF}_3$ ,  $\text{OCH}_3$ ,  $\text{CH}_3$  and  $\text{CF}_3$ ;

X is a member selected from the group consisting of furanylene substituted with 0-1  
 $\text{R}^x$ , thienylene substituted with 0-1  $\text{R}^x$ , pyrazolyene substituted with 0-1  $\text{R}^x$ ,  
thiazolyene substituted with 0-1  $\text{R}^x$ , and oxazolyene substituted with 0-1  $\text{R}^x$ ;

$\text{R}^x$  is a member selected from the group consisting of F, Cl,  $\text{CH}_3$  and  $\text{CF}_3$ ;

$\text{R}^2$  is a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{2a}$ ,  
and  $(\text{CH}_2)_n\text{R}^{2b}$ ;

each  $\text{R}^{2a}$  is independently a member selected from the group consisting of Cl, F,  
 $\text{OCF}_3$ ,  $\text{OCH}_3$ ,  $\text{CH}_3$  and  $\text{CF}_3$ ;

$\text{R}^{2b}$  is independently a member selected from the group consisting of phenyl  
substituted with 0-2  $\text{R}^{2a}$ ; cyclopentyl, cyclohexyl and tetrahydropyranyl;

n is the integer 1 or 2;

$\text{R}^3$  is  $(\text{CH}_2)_m\text{R}^{3b}$ ;

$\text{R}^{3b}$  is selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{2a}$ ,  
cyclopentyl and cyclohexyl;

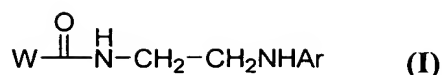
m is the integer 1 or 2;  
 $R^4$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{4a}$ ,  
 thienyl, tetrazolyl, cyclopentenyl and indolyl;  
 each  $R^{4a}$  is a member selected from the group consisting of phenyl, OH, C<sub>1</sub>-C<sub>4</sub> alkyl,  
 C<sub>1</sub>-C<sub>4</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, F, Cl, CH<sub>3</sub>S(=O)<sub>2</sub>-, morpholinyl, pyrrolidinyl,  
 piperidinyl and 4-acetylpiperazinyl;  
 Y is a member selected from the group consisting of  $-CR^{17}R^{18}$ ,  $-NH-CH_2-$  and  $-O-$   
 $CH_2-$ ;  
 $R^5$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{5a}$ ,  
 thiophene, naphthyl, and  $CH_2R^{5b}$ ,  $CH_2CH_2$ (cyclohexyl),  
 $CH_2CH_2CH_2$ (cyclohexyl),  $CH_2CH_2Ph$ ,  $CH(CH_3)R^{5c}$ ,  $CH_2CH=CHPh$ , -  
 $CH_2OCH_2Ph$ ,  $-CH(CH_3)OCH_2Ph$ ;  
 each  $R^{5a}$  is independently a member selected from the group consisting of F, Cl, NO<sub>2</sub>,  
 OCH<sub>3</sub>, OCH<sub>2</sub>Ph, OPh, CH<sub>3</sub>, OCF<sub>3</sub> and CF<sub>3</sub>;  
 $R^{5b}$  is independently a member selected from the group consisting of phenyl  
 substituted with 0-2  $R^{5c}$ ; cyclopentyl, cyclohexyl, naphthyl, indolyl and  
 pyridyl;  
 $R^{5c}$  is independently a member selected from the group consisting of OH, Cl, F, Br, I,  
 CN, NO<sub>2</sub>, CH<sub>3</sub>, OCH<sub>3</sub>, <sup>t</sup>Bu, O-<sup>t</sup>Bu,  $-NHC(=O)CH_3$ , CF<sub>3</sub>, OCF<sub>3</sub>; phenyl  
 substituted with 0-2  $R^{5d}$ ; phenoxy substituted with 0-2  $R^{5d}$ ; benzyloxy  
 substituted with 0-2  $R^{5d}$ ; pyridyl substituted with 0-2  $R^{5d}$ ; pyrimidinyl  
 substituted with 0-2  $R^{5d}$ ; thienyl substituted with 0-2  $R^{5d}$ ;  
 $R^{5d}$  is independently a member selected from the group consisting of CH<sub>3</sub>, Cl, F,  
 OCH<sub>3</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, N(CH<sub>3</sub>)<sub>2</sub>, acetyl, OH, CH<sub>2</sub>OH, NH<sub>2</sub>, CN and NO<sub>2</sub>;  
 $R^{5e}$  is phenyl substituted with 0-2  $R^{5a}$ ;  
 $R^6$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{6a}$ ,  
 furanyl substituted with 0-2  $R^{6b}$ , thienyl substituted with 0-2  $R^{6b}$ , oxazolyl  
 substituted with 0-2  $R^{6b}$ , thiazolyl substituted with 0-2  $R^{6b}$ , pyridyl,  
 pyridazinyl and cyclopropyl;  
 each  $R^{6a}$  is independently a member selected from the group consisting of Cl, F, Br,  
 OCF<sub>3</sub>, CF<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy,  $-S(=O)_2CH_3$ , CN,  $-N(CH_3)_2$ , OCF<sub>2</sub>H, -  
 $CH_2$ -benzimidazole,  $-NH-S(=O)_2CH_3$ ,  $-NR^{13}R^{14}$ ,  $OR^{14}$ ,  $CH_2$ -morpholine,  
 $CH_2NH_2$ , OCH<sub>2</sub>Ph, and OPh;

alternatively, two R<sup>6a</sup> substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical has 1 or 2 oxygen atom(s);  
 each R<sup>6b</sup> is independently a member selected from the group consisting of NH<sub>2</sub>, F, Cl,  
 Br, -S(=O)<sub>2</sub>R<sup>15</sup>, CH<sub>3</sub>, and CF<sub>3</sub>;  
 R<sup>7</sup> is a member selected from the group consisting of (CH<sub>2</sub>)<sub>p</sub> R<sup>7a</sup>, and naphthyl  
 substituted with 0-2 R<sup>7b</sup>;  
 p is the integer 0, 1, or 2;  
 R<sup>7a</sup> is phenyl substituted with 0-2 R<sup>7b</sup>;  
 R<sup>7b</sup> is a member selected from the group consisting of F, Cl, CF<sub>3</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub>  
 alkoxy, OCF<sub>3</sub>, phenoxy and acetyl;  
 alternatively, two R<sup>7b</sup> substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical has 1 or 2 oxygen atom(s);  
 R<sup>8</sup> is -CH<sub>2</sub>-R<sup>3b</sup>;  
 R<sup>9</sup> is (CH<sub>2</sub>)<sub>q</sub>R<sup>9a</sup>;  
 R<sup>9a</sup> is a member selected from the group consisting of cyclopentyl, phenyl and  
 cyclohexyl;  
 q is the integer 1 or 2;  
 R<sup>10</sup> is a member selected from the group consisting of phenyl substituted with 0-2  
 R<sup>10a</sup>, 5 membered heteroaryl containing 1 to 4 heteroatoms each independently  
 a member selected from the group consisting of N, O and S, wherein said  
 heteroaryl is substituted with 0-2 R<sup>10a</sup>, 6 membered heteroaryl containing 1 to  
 2 N, wherein said heteroaryl is substituted with 0-2 R<sup>10a</sup>, morpholinyl  
 substituted with 0-2 R<sup>10a</sup>, piperazinyl substituted with 0-2 R<sup>10a</sup> and piperidinyl  
 substituted with 0-2 R<sup>10a</sup>;  
 each R<sup>10a</sup> is independently a member selected from the group consisting of Cl, F, C<sub>1</sub>-  
 C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, OCF<sub>3</sub>, and CF<sub>3</sub>;  
 alternatively, two R<sup>10a</sup> substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical comprises 1 or 2 heteroatom(s);  
 Z is phenylene;  
 R<sup>11</sup> is a member selected from the group consisting of indolyl substituted with 0-2  
 R<sup>11a</sup>, benzofuranyl substituted with 0-2 R<sup>11a</sup>, benzothieryl substituted with 0-2

100  $R^{11a}$ , benzothiazole substituted with 0-2  $R^{11a}$ , benzisoxazolyl substituted with  
 101 0-2  $R^{11a}$ , benzoxazolyl substituted with 0-2  $R^{11a}$ , and pyrazolo[1,5-  
 102 a]pyrimidinyl substituted with 0-2  $R^{11a}$ , piperidinyl N-substituted with 0-1  
 103  $R^{11b}$ , morpholinyl N-substituted with 0-1  $R^{11b}$ ; and 2-oxo-pyrrolidinyl with 0-1  
 104  $R^{11b}$ ;  
 105 each  $R^{11a}$  is independently a member selected from the group consisting of Cl, F,  
 106  $NH_2$ ,  $CH_3$ ,  $OCH_3$ ,  $-C(=O)OCH_3$ ,  $OCF_3$ , and  $CF_3$ ;  
 107 each  $R^{11b}$  is independently a member selected from the group consisting of  
 108 pyrimidinyl substituted with 0-2  $R^{11c}$ ; benzyl, acetyl,  $CH_2$ -furanlyl, and  $CH_2$ -  
 109 thienyl;  
 110 each  $R^{11c}$  is independently a member selected from the group consisting of Br and  
 111  $CH_3$ ;  
 112  $R^{12}$  is  $(CH_2)_s R^{12a}$ ;  
 113  $R^{12a}$  is a member selected from the group consisting of cyclopentyl and cyclohexyl;  
 114 s is the integer 1 or 2;  
 115  $R^{13}$  is a member selected from the group consisting of H and  $C_1$ - $C_4$  alkyl;  
 116  $R^{14}$  is pyrimidinyl substituted with 0-2  $R^{16}$ ;  
 117  $R^{15}$  is a member selected from the group consisting of  $C_1$ - $C_4$  alkyl, morpholinyl,  
 118 pyrrolidinyl and piperidinyl;  
 119  $R^{16}$  is a member selected from the group consisting of  $CH_3$  and  $OCH_3$ ;  
 120 each of  $R^{17}$  and  $R^{18}$  is independently a member of H, OH, F, phenyl and  $C_1$ - $C_3$  alkyl;  
 121 alternatively,  $R^{17}$  and  $R^{18}$  may be taken together to form a  $C_3$ - $C_6$  cycloalkyl;  
 122 Ar is a phenyl substituted with 0-2  $R^{19}$ ;  
 123 each  $R^{19}$  is independently a member selected from the group consisting of F, Cl,  
 124  $COOH$ ,  $C_1$ - $C_4$  alkoxy,  $OCHF_2$  and  $OCF_3$ ;  
 125 and a pharmaceutically acceptable excipient.

1           **10.**   The composition of claim 9, wherein said compound is a member  
 2 selected from the compounds of Table I.

1           **11.**   A method of selectively inhibiting cathepsin S activity in a mammal in  
 2 need thereof, comprising administering to said mammal a therapeutically effective amount of  
 3 a compound of Formula I:



or a pharmaceutically acceptable salt or prodrug thereof,

wherein:

W is a member selected from the group consisting of

$\text{R}^1\text{-X-(C=O)-NH-CHR}^2\text{-}$ ,

$\text{R}^4\text{-Y-(C=O)-NH-CHR}^3\text{-}$ ,

$\text{R}^6\text{-(C=O)-NH-CHR}^5\text{-}$ ,

$\text{R}^7\text{-NH-(C=O)-NH-CHR}^8\text{-}$ ,

$\text{R}^{10}\text{-Z-(C=O)-NH-CHR}^9\text{-}$ , and

$\text{R}^{11}\text{-(C=O)-NH-CHR}^{12}\text{-}$ ;

$\text{R}^1$  is a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{1a}$ , pyridyl substituted with 0-2  $\text{R}^{1a}$ , and pyridinium N-oxide substituted with 0-2  $\text{R}^{1a}$ ;

each  $\text{R}^{1a}$  is independently a member selected from the group consisting of Cl, F,  $\text{OCF}_3$ ,  $\text{OCH}_3$ ,  $\text{CH}_3$  and  $\text{CF}_3$ ;

X is a member selected from the group consisting of furanylene substituted with 0-1  $\text{R}^x$ , thienylene substituted with 0-1  $\text{R}^x$ , pyrazolylene substituted with 0-1  $\text{R}^x$ , thiazolylene substituted with 0-1  $\text{R}^x$ , and oxazolylene substituted with 0-1  $\text{R}^x$ ;

$\text{R}^x$  is a member selected from the group consisting of F, Cl,  $\text{CH}_3$  and  $\text{CF}_3$ ;

$\text{R}^2$  is a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{2a}$ , and  $(\text{CH}_2)_n\text{R}^{2b}$ ;

each  $\text{R}^{2a}$  is independently a member selected from the group consisting of Cl, F,  $\text{OCF}_3$ ,  $\text{OCH}_3$ ,  $\text{CH}_3$  and  $\text{CF}_3$ ;

$\text{R}^{2b}$  is independently a member selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{2a}$ ; cyclopentyl, cyclohexyl and tetrahydropyranyl;

n is the integer 1 or 2;

$\text{R}^3$  is  $(\text{CH}_2)_m\text{R}^{3b}$ ;

$\text{R}^{3b}$  is selected from the group consisting of phenyl substituted with 0-2  $\text{R}^{2a}$ , cyclopentyl and cyclohexyl;

m is the integer 1 or 2;

$\text{R}^4$  is a member selected from the group consisting of phenyl substituted with 0-3  $\text{R}^{4a}$ , thienyl, tetrazolyl, cyclopentenyl and indolyl;

each  $R^{4a}$  is a member selected from the group consisting of phenyl, OH,  $C_1$ - $C_4$  alkyl,  
 $C_1$ - $C_4$  alkoxy,  $CF_3$ ,  $OCF_3$ , F, Cl,  $CH_3S(=O)_2$ -, morpholinyl, pyrrolidinyl,  
 piperidinyl and 4-acetypiperazinyl;  
 Y is a member selected from the group consisting of  $-CR^{17}R^{18}$ ,  $-NH-CH_2-$  and  $-O-$   
 $CH_2-$ ;  
 $R^5$  is a member selected from the group consisting of phenyl substituted with 0-2  $R^{5a}$ ,  
 thiophene, naphthyl, and  $CH_2R^{5b}$ ,  $CH_2CH_2$ (cyclohexyl),  
 $CH_2CH_2CH_2$ (cyclohexyl),  $CH_2CH_2Ph$ ,  $CH(CH_3)R^{5c}$ ,  $CH_2CH=CHPh$ , -  
 $CH_2OCH_2Ph$ ,  $-CH(CH_3)OCH_2Ph$ ;  
 each  $R^{5a}$  is independently a member selected from the group consisting of F, Cl,  $NO_2$ ,  
 $OCH_3$ ,  $OCH_2Ph$ ,  $OPh$ ,  $CH_3$ ,  $OCF_3$  and  $CF_3$ ;  
 $R^{5b}$  is independently a member selected from the group consisting of phenyl  
 substituted with 0-2  $R^{5c}$ ; cyclopentyl, cyclohexyl, naphthyl, indolyl and  
 pyridyl;  
 $R^{5c}$  is independently a member selected from the group consisting of OH, Cl, F, Br, I,  
 CN,  $NO_2$ ,  $CH_3$ ,  $OCH_3$ ,  $tBu$ ,  $O-tBu$ ,  $-NHC(=O)CH_3$ ,  $CF_3$ ,  $OCF_3$ ; phenyl  
 substituted with 0-2  $R^{5d}$ ; phenoxy substituted with 0-2  $R^{5d}$ ; benzyloxy  
 substituted with 0-2  $R^{5d}$ ; pyridyl substituted with 0-2  $R^{5d}$ ; pyrimidinyl  
 substituted with 0-2  $R^{5d}$ ; thienyl substituted with 0-2  $R^{5d}$ ;  
 $R^{5d}$  is independently a member selected from the group consisting of  $CH_3$ , Cl, F,  
 $OCH_3$ ,  $CF_3$ ,  $OCF_3$ ,  $N(CH_3)_2$ , acetyl, OH,  $CH_2OH$ ,  $NH_2$ , CN and  $NO_2$ ;  
 $R^{5e}$  is phenyl substituted with 0-2  $R^{5a}$ ;  
 $R^6$  is a member selected from the group consisting of phenyl substituted with 0-3  $R^{6a}$ ,  
 furanyl substituted with 0-2  $R^{6b}$ , thienyl substituted with 0-2  $R^{6b}$ , oxazolyl  
 substituted with 0-2  $R^{6b}$ , thiazolyl substituted with 0-2  $R^{6b}$ , pyridyl,  
 pyridazinyl and cyclopropyl;  
 each  $R^{6a}$  is independently a member selected from the group consisting of Cl, F, Br,  
 $OCF_3$ ,  $CF_3$ ,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $-S(=O)_2CH_3$ , CN,  $-N(CH_3)_2$ ,  $OCF_2H$ , -  
 $CH_2$ -benzimidazole,  $-NH-S(=O)_2CH_3$ ,  $-NR^{13}R^{14}$ ,  $OR^{14}$ ,  $CH_2$ -morpholine,  
 $CH_2NH_2$ ,  $OCH_2Ph$ , and  $OPh$ ;  
 alternatively, two  $R^{6a}$  substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical has 1 or 2 oxygen atom(s);

each  $R^{6b}$  is independently a member selected from the group consisting of  $NH_2$ , F, Cl,  
 Br,  $-S(=O)_2R^{15}$ ,  $CH_3$ , and  $CF_3$   
 $R^7$  is a member selected from the group consisting of  $(CH_2)_p R^{7a}$ , and naphthyl  
 substituted with 0-2  $R^{7b}$ ;  
 p is the integer 0, 1, or 2;  
 $R^{7a}$  is phenyl substituted with 0-2  $R^{7b}$ ;  
 $R^{7b}$  is a member selected from the group consisting of F, Cl,  $CF_3$ ,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$   
 alkoxy,  $OCF_3$ , phenoxy and acetyl;  
 alternatively, two  $R^{7b}$  substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical has 1 or 2 oxygen atom(s);  
 $R^8$  is  $-CH_2-R^{3b}$ ;  
 $R^9$  is  $(CH_2)_q R^{9a}$ ;  
 $R^{9a}$  is a member selected from the group consisting of cyclopentyl, phenyl and  
 cyclohexyl;  
 q is the integer 1 or 2;  
 $R^{10}$  is a member selected from the group consisting of phenyl substituted with 0-2  
 $R^{10a}$ , 5 membered heteroaryl containing 1 to 4 heteroatoms each independently  
 a member selected from the group consisting of N, O and S, wherein said  
 heteroaryl is substituted with 0-2  $R^{10a}$ , 6 membered heteroaryl containing 1 to  
 2 N, wherein said heteroaryl is substituted with 0-2  $R^{10a}$ , morpholinyl  
 substituted with 0-2  $R^{10a}$ , piperazinyl substituted with 0-2  $R^{10a}$  and piperidinyl  
 substituted with 0-2  $R^{10a}$ ;  
 each  $R^{10a}$  is independently a member selected from the group consisting of Cl, F,  $C_1$ -  
 $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy,  $OCF_3$ , and  $CF_3$ ;  
 alternatively, two  $R^{10a}$  substituents on adjacent atoms may be combined to form a 5 to  
 6 membered heterocyclic fused radical, wherein said 5 to 6 membered  
 heterocyclic fused radical comprises 1 or 2 heteroatom(s);  
 Z is phenylene;  
 $R^{11}$  is a member selected from the group consisting of indolyl substituted with 0-2  
 $R^{11a}$ , benzofuranyl substituted with 0-2  $R^{11a}$ , benzothienyl substituted with 0-2  
 $R^{11a}$ , benzothiazole substituted with 0-2  $R^{11a}$ , benzisoxazolyl substituted with  
 0-2  $R^{11a}$ , benzoxazolyl substituted with 0-2  $R^{11a}$ , and pyrazolo[1,5-  
 a]pyrimidinyl substituted with 0-2  $R^{11a}$ , piperidinyl N-substituted with 0-1



103  $R^{11b}$ , morpholinyl N-substituted with 0-1  $R^{11b}$ ; and 2-oxo-pyrrolidinyl with 0-1  
 104  $R^{11b}$ ;  
 105 each  $R^{11a}$  is independently a member selected from the group consisting of Cl, F,  
 106  $NH_2$ ,  $CH_3$ ,  $OCH_3$ ,  $-C(=O)OCH_3$ ,  $OCF_3$ , and  $CF_3$ ;  
 107 each  $R^{11b}$  is independently a member selected from the group consisting of  
 108 pyrimidinyl substituted with 0-2  $R^{11c}$ ; benzyl, acetyl,  $CH_2$ -furanlyl, and  $CH_2$ -  
 109 thienyl;  
 110 each  $R^{11c}$  is independently a member selected from the group consisting of Br and  
 111  $CH_3$ ;  
 112  $R^{12}$  is  $(CH_2)_s R^{12a}$ ;  
 113  $R^{12a}$  is a member selected from the group consisting of cyclopentyl and cyclohexyl;  
 114 s is the integer 1 or 2;  
 115  $R^{13}$  is a member selected from the group consisting of H and  $C_1$ - $C_4$  alkyl;  
 116  $R^{14}$  is pyrimidinyl substituted with 0-2  $R^{16}$ ;  
 117  $R^{15}$  is a member selected from the group consisting of  $C_1$ - $C_4$  alkyl, morpholinyl,  
 118 pyrrolidinyl and piperidinyl;  
 119  $R^{16}$  is a member selected from the group consisting of  $CH_3$  and  $OCH_3$ ;  
 120 each of  $R^{17}$  and  $R^{18}$  is independently a member of H, OH, F, phenyl and  $C_1$ - $C_3$  alkyl;  
 121 alternatively,  $R^{17}$  and  $R^{18}$  may be taken together to form a  $C_3$ - $C_6$  cycloalkyl;  
 122 Ar is a phenyl substituted with 0-2  $R^{19}$ ; and  
 123 each  $R^{19}$  is independently a member selected from the group consisting of F, Cl,  
 124  $COOH$ ,  $C_1$ - $C_4$  alkoxy,  $OCHF_2$  and  $OCF_3$ .

1                    12.     The method of claim 11, wherein the cathepsin S inhibition constant  
 2     for a compound of Formula I is less than 10  $\mu M$ .

1                    13.     The method of claim 12, wherein the cathepsin S inhibition constant  
 2     for a compound of Formula I is less than 1.0  $\mu M$ .

1                    14.     The method of claim 13, wherein the cathepsin S inhibition constant  
 2     for a compound of Formula I is less than 0.1  $\mu M$ .

1                    15.     The method of claim 11, wherein cathepsin S is selectively inhibited in  
 2     the presence of cathepsin K.

1                   **16.**     The method of claim **15**, wherein the inhibition constant of a  
2 compound of Formula I for cathepsin K is at least 10 times greater than a cathepsin S  
3 inhibition constant of a compound of Formula I.

1                   **17.**     The method of claim **16**, wherein the inhibition constant of a  
2 compound of Formula I for cathepsin K is at least 100 times greater than said cathepsin S  
3 inhibition constant of a compound of Formula I.

1                   **18.**     The method of claim **17**, wherein the inhibition constant of a  
2 compound of Formula I for cathepsin K is at least 1000 times greater than said cathepsin S  
3 inhibition constant of a compound of Formula I.

1                   **19.**     The method of claim **11**, wherein said compound is a member selected  
2 from the compounds of Table I.